

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-8, 10-12, 14-15, 18, 20-24 and 26-35 are pending. Claims 1, 13 and 28 are independent.

Applicants have resubmitted the formal drawings with this reply. The formal drawings have been appropriately labeled "Replacement Sheet". Entry of these drawings is respectfully requested.

Claims 30-35 stand rejection under 35 U.S.C. 112, second paragraph as lacking antecedent basis with respect to the phrase "into adjacent voxels." Applicants do not understand this rejection. The rejected claims do not recite "into said adjacent voxels" or "into the adjacent voxels." Instead, the "adjacent voxels" are originally introduced in a proper fashion by the phrase "into adjacent voxels." Applicants respectfully request that the Examiner withdraw this rejection.

Claims 1-6, 9, 15-21 and 27-29 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hartley (USP 5,903,664). Applicants respectfully traverse.

In the previously filed response, applicants correctly pointed out that the Hartley patent fails to disclose or suggest "growing a region in three dimensions about the seed point," as recited in claim 1.

From the Examiner's rebuttal statements in the Final Office Action, the Examiner appears to believe that the Hartley reference does teach growth of a region in three dimensions. In particular, the Examiner relies on column 4, lines 10-12 and 26-30 as supplying this teaching.

However, the passage cited by the Examiner states that after initialization of the region of interest and seed point in one image, subsequent automatic processing tracks this region through other images to get a complete segmentation of structures within the region of interest. Subsequent passages make it clear that the growth of the region occurs in two dimensions only. In particular, at column 5, lines 10-15, Hartley specifies that an adjusted threshold is used as the threshold by the masking device on the adjacent image, and the last processed image is used to determine a centroid and region of interest. The centroid of the current image is used as a seed point for the next adjacent image. This section of Hartley makes clear that a new seed point is selected in each image. Moreover, an adjusted threshold is established specific to each image. The fact that each image has a unique seed point and unique threshold underlines the fact that a region is grown in two dimensions in each image. Nowhere does Hartley suggest growing a region in three dimensions about a single seed point. If he did, he would not need to select a seed point in each image.

Column 5, lines 15-23 also state that the 2D segmentation outline for each slice for a given phase may be used to construct a 3D surface. Namely, Hartley teaches two-dimensional region growth around a specific seed point in each image and the stitching together of the two-dimensional regions to obtain a three-dimensional volume. In this sense, the Hartley system cannot be said to be "growing a region in three-dimensions about said seed point" as recited in

claim 1. In Hartley, the growing does not occur in three-dimensions and the three-dimensional growth is not about said seed point.

Accordingly, as demonstrated above, Hartley neither discloses nor suggests the subject matter recited in the independent claims, and therefore, for at least these reasons, cannot anticipate or render claims 1-6, 9, 15-21 and 27-29 obvious to one skilled in the art.

Applicants respectfully request that the Examiner withdraw this art grounds of rejection.

CONCLUSION

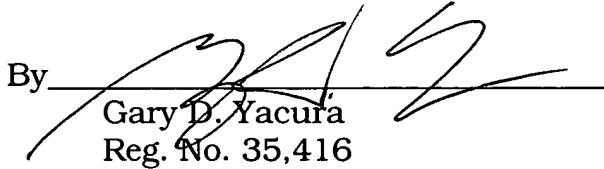
In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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